

C&A Technology

CAT UDC Compare

User Guide

Version 2.0

Compare and export JD Edwards User Defined Codes (F0005) and UDC type definitions (F0004) across environments.

Example installation directory used throughout this guide: C:\CAT-Tools

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1. About CAT UDC Compare

CAT UDC Compare reads the **User Defined Codes** (table F0005) and the **UDC type definitions** (table F0004) from JD Edwards EnterpriseOne and lets you:

- **Review** the codes for one environment on screen (Live Review).
- **Export** the codes and type definitions of one environment to an Excel workbook.
- **Compare** two environments — live against live, live against a saved snapshot, or snapshot against snapshot — and get an Excel workbook that highlights what is different.

1.1 The three ideas to know first

Idea	What it means
Connection	How the tool reaches a JDE environment. Two kinds: E1 XML (the JDE XML/JAS interface, using a server, port, user and password) or Database (a direct database connection to AS400/DB2, MS-SQL or Oracle).
Cache run	A saved snapshot of the UDC values and type definitions read from a connection at a point in time. Every refresh creates its own new run and nothing is ever overwritten, so you can compare today against last month. Runs are listed on the Cache History tab.
Report	An Excel workbook (.xlsx) produced by an Export or a Compare. Every report you run is listed on the Report History tab with its connections, file name, folder, status and duration.

1.2 Live and Cache

Whenever you export, compare or review, each source is either:

- **Refresh Live** — read the data from the connection now. For an export or a compare, the tool first builds a new cache run from the live connection (you can watch it in the grids), then writes the report from that run. For Live Review the data is read directly and no cache is built.
- **Use Cache** — use a cache run you built earlier. This is fast and does not touch JDE, and it lets you compare a past snapshot with today.

Tip: Build the caches you need once with **Cache ► Refresh Cache**, then compare or export from them as often as you like without waiting for JDE.

2. Installation

2.1 What you need

Requirement	Details
Operating system	Windows (64-bit).
Base JDK	JDK 25 (64-bit) installed in a folder named JDK25 inside the same parent directory as the application — in this guide C:\CAT-Tools\JDK25 . The application starts from this shared JDK; JavaFX does not need to be installed separately (it is built into the application).
Application	CAT-UdcCompare.exe (version 2.0) in its own folder under the parent directory — C:\CAT-Tools\CAT-UdcCompare .
License	A CAT UDC Compare license key. Keys already issued for the earlier UDC comparison tools continue to work.
Network (first start)	Internet access from the PC to the CAT license server to validate the key the first time. Later starts re-check silently and can run offline until the license expiry date.
JDE access	For an E1 XML connection: the JDE server name and the XML/JAS port reachable from your PC, plus a JDE user and password. For a Database connection: the database server, port, schema/owner and a database user that can read F0005 and F0004.
Disk and permissions	The application folder must be writable by the user running it — the tool creates its database and log files there when it first runs. Do not install under C:\Program Files.

2.2 Folder layout

Use one parent directory for CAT tools. Every CAT tool in the parent directory shares the one JDK. The JDK folder name and its position matter: the application looks for it one level up from its own folder, at `..\JDK25`.

```

C:\CAT-Tools\
  JDK25\                <-- the base JDK 25 (contains bin\java.exe)
  CAT-UdcCompare\
    CAT-UdcCompare.exe   <-- the application
    logging.properties  <-- optional, see 2.5
    settings\           <-- created on first run (your data)
    derby.log           <-- created on first run
    catXUdcCompare0.0.log <-- created on first run (application log)

```

Important: The folder must be named exactly **JDK25** and sit **beside** the application folder, not inside it. If it is missing or misnamed, the application cannot find its Java runtime and will not start.

2.3 Installing step by step

1. Create the parent directory **C:\CAT-Tools** if it does not already exist.

2. Install **JDK 25 (64-bit)** into `C:\CAT-Tools\JDK25`. Use the .zip distribution of the JDK and extract it so that `C:\CAT-Tools\JDK25\bin\java.exe` exists (not `C:\CAT-Tools\JDK25\jdk-25\bin\java.exe`). Any vendor's JDK 25 is suitable.
3. Confirm the JDK. Open a Command Prompt and run `C:\CAT-Tools\JDK25\bin\java.exe -version`. It must report version 25.
4. Create the folder `C:\CAT-Tools\CAT-UdcCompare` and copy `CAT-UdcCompare.exe` into it. If you were given a `logging.properties` file, copy it there too.
5. Create a shortcut: right-click `CAT-UdcCompare.exe`, choose **Send to ► Desktop (create shortcut)**, then open the shortcut's **Properties** and make sure **Start in** is `C:\CAT-Tools\CAT-UdcCompare`.

Important: Always start the tool with **Start in** set to the application folder (double-clicking the exe does this automatically). The database, log and settings files are created in whichever folder the tool is started from; starting it from a different folder creates a second, empty set of connections and history.

2.4 Where your data lives

Everything you create — connections, cache runs, report history and remembered window and folder settings — is stored in the **settings** folder inside the application folder (an embedded database). To back up or move your setup, close the tool and copy the whole `C:\CAT-Tools\CAT-UdcCompare\settings` folder.

Note: Connection passwords are stored in this local database. Protect the application folder with normal Windows permissions.

2.5 Logging (optional)

The tool writes a log file, `catXUdcCompare0.0.log`, in the application folder (it rolls over at 10 MB and keeps three files). How much it records is controlled by **logging.properties** in the same folder; the tool creates a default one if none exists. The settings that matter:

- `com.catechnology.level=FINE` — detailed: every cache run and report start, finish and problem is recorded. Recommended while you are getting started, and when reporting a problem.
- `com.catechnology.level=WARNING` — quiet: only problems are recorded.

2.6 Upgrading and removing

- **Upgrade:** close the tool, replace `CAT-UdcCompare.exe` with the new version, and leave the **settings** folder alone. Your connections, caches and history are kept. Upgrading from the **previous bundled version**? See section 2.7.
- **Remove:** delete the `C:\CAT-Tools\CAT-UdcCompare` folder. Copy the **settings** folder somewhere safe first if you may want your connections again. Leave `JDK25` in place if other CAT tools use it.

2.7 Upgrading from the previous version

The previous version of CAT UDC Compare was a larger bundled application. Its install folder contained an **app** folder, a **runtime** folder and many DLL files, as shown below. This version is a single CAT-UdcCompare.exe that starts from the shared JDK in C:\CAT-Tools\JDK25 (section 2.2).

app	5/21/2026 1:59 PM	File folder	
runtime	5/21/2026 2:06 PM	File folder	
api-ms-win-core-console-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-console-l1-2-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-datetime-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-debug-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-errorhandling-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-file-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	15 KB
api-ms-win-core-file-l1-2-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-file-l2-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-handle-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-heap-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-interlocked-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-libraryloader-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	13 KB
api-ms-win-core-localization-l1-2-0.dll	1/22/2025 5:01 PM	Application exten...	14 KB
api-ms-win-core-memory-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-namedpipe-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	12 KB
api-ms-win-core-processenvironment-l1...	1/22/2025 5:01 PM	Application exten...	13 KB
api-ms-win-core-processthreads-l1-1-0.dll	1/22/2025 5:01 PM	Application exten...	14 KB
api-ms-win-core-processthreads-l1-1-1.dll	1/22/2025 5:01 PM	Application exten...	12 KB

The previous version's install folder: an app folder, a runtime folder and many DLL files.

This version stores connections and cache runs in a new structure, so use a **clean install**: install it in a **new folder** rather than over the old one.

Tip: The same license key can be used. The key you used with the previous version is valid for this version.

1. Close the previous version.
2. Install this version in a **new folder** as described in section 2.3 — for example C:\CAT-Tools\CAT-UdcCompare\CAT-UdcCompare.exe, with the base JDK in C:\CAT-Tools\JDK25.
3. Start it and enter your license key when the license dialog opens (section 3.2). The **same license key** is accepted.
4. Create your connections (section 5). Each connection is now a named entry of type **E1 XML** or **Database** (AS400/DB2, MS-SQL or Oracle — see Appendix A for the exact entries).
5. Build the caches you need (section 6), then export or compare as usual.
6. When you are satisfied with the new version, you can remove the old folder.

What is different in this version:

Item	Previous version	This version
License	Licensed with your license key.	The same license key is used (section 3.2).
Connections	Two fixed connection entries.	A list of named connections, E1 XML or Database (section 5).

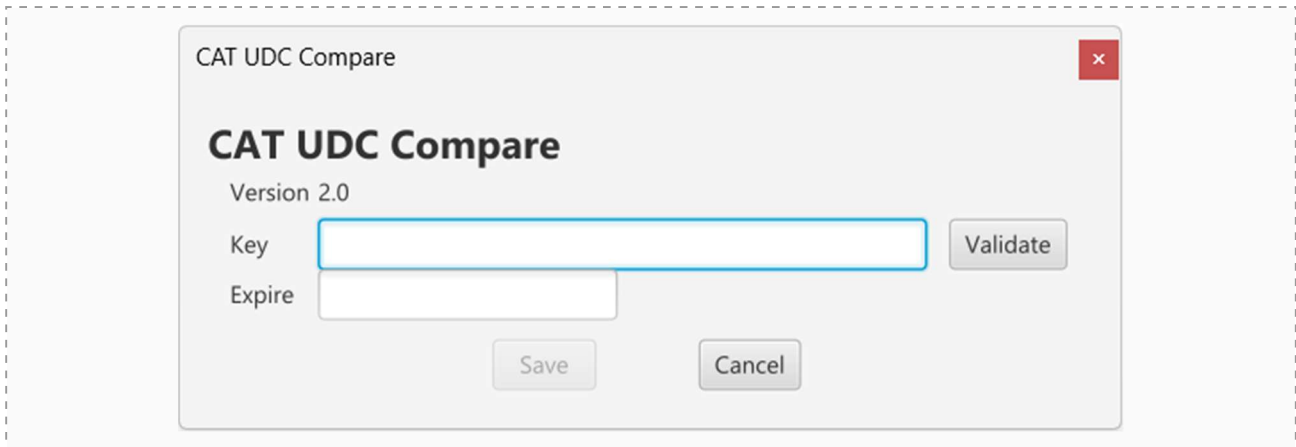
Item	Previous version	This version
Cache	None — no cache details were stored.	Every Refresh Cache saves a new, separate snapshot (section 6).
Reports	Excel output in the earlier layout.	The standard CAT Excel layout, with a header block and connection details (sections 8 and 9).

Note: **No data is lost.** The previous version did not store any cache details, so there is nothing to bring across. Excel reports you created earlier stay wherever you saved them.

3. Starting the application for the first time

3.1 Launch

1. Double-click the **CAT UDC Compare** shortcut (or CAT-UdcCompare.exe).
2. A small window with the CAT logo and the message “**Please wait validating license...**” appears while the tool prepares its database and checks the license.
3. The main window opens. On the very first start the **license dialog** opens on top of it straight away.



3.2 Enter your license key

1. In the **Key** field, type or paste your license key.
2. Click **Validate**. The tool contacts the CAT license server (this is why the first start needs internet access).
3. When the key is accepted, the **Expire** field shows the expiry date (month/day/year) and the **Save** button becomes available.
4. Click **Save**. The key is stored and the application is ready to use.

Tip: If you used the earlier UDC comparison tools, use the same key — it is valid for this version.

If validation does not succeed, an error window titled **License Failure** says “**The key has not been successfully validated.**” and shows the reason from the license server. Check the key and try again. See the troubleshooting table in section 11 for the messages and what to do.

Important: If you click **Cancel**, or close the dialog without saving a validated key, the tool shows “**Invalid License — The application license has not been validated**” and closes. Start it again and re-enter the key.

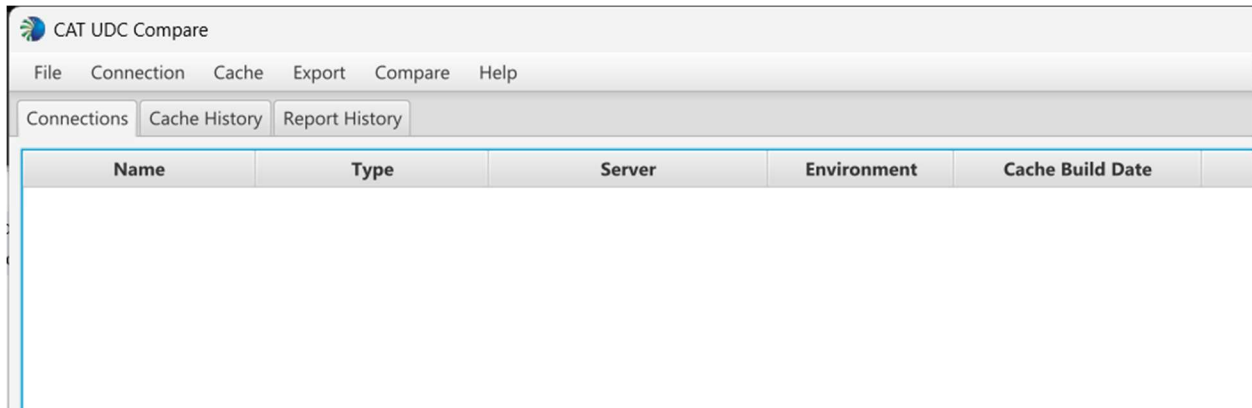
3.3 Later starts

- On every start the tool re-checks the license in the background. If the license server cannot be reached, it keeps running until the **expiry date it last stored**.
- If the stored license has expired or is no longer valid, the license dialog opens again with your key filled in — click **Validate**, then **Save**.

- **Help ► Validate License** opens the same dialog at any time, for example after a renewal. **Help ► About** shows the application name, version (2.0), key and expiry date.
- Only **one copy** of the tool can run from a folder at a time. A second start shows **“Initialization Error — Application Already Running”**; close the first copy (check the Windows Task Manager if you cannot see it).

3.4 Your first look

With no connections yet the three tabs are empty. The window opens at a default size and, from then on, remembers where you left it and how big it was. To close the tool use **File ► Exit** or the window's close button — anything still running is stopped, so wait for running caches and reports to finish first.



Next, create a connection (section 5).

4. The main window

4.1 Menu bar

Menu	Item	What it does
File	Exit	Saves the window position and size and closes the tool.
Connection	New	Adds a connection.
	Edit	Edits the selected connection.
	Copy	Adds a new connection pre-filled from the selected one (you give it a new name).
	Delete	Deletes the selected connection and all of its cache runs.
	Live Review	Opens the Live Review window.
Cache	Refresh Cache	Builds a new cache run from a connection.
	Live Review	Opens the Live Review window.
Export	Export UDC Data	Writes one source's UDC types and values to Excel.
Compare	Run Compare	Compares two sources and writes the differences to Excel.
Help	Validate License	Opens the license dialog.
	About	Shows name, version, key and expiry date.

Note: Edit, Copy and Delete need a connection selected on the **Connections** tab. Refresh Cache, Export UDC Data and Live Review pre-select the connection you have selected (or the first one in the list); you can change it in the dialog.

4.2 The three tabs

Connections

Column	Shows
Name	The connection name.
Type	E1 XML , or Database (AS400/DB2) , Database (MS-SQL) , Database (Oracle) .
Server	The server name.
Environment	The JDE environment.
Cache Build Date	When the connection's cache was last built successfully, or Never .

Cache History

Column	Shows
Connection	The connection the run was built from.
Started	When the run started.
System Codes	The system codes the run was limited to, or All .
Description	The name given to the run (by default the connection name and the date/time).
Progress	What the run is doing right now; blank when idle.
Status	See the status table below.
Duration	How long the build took, as hours:minutes:seconds (for example 00:02:41).

Report History

Column	Shows
Type	UDC Compare or UDC Export .
Started	When the report was started.
Connections	The connections used. A compare reads “left vs right”. Once the caches are known, each name is followed by the date and time of its cache run in brackets.
File Name	The Excel file name.
Output Folder	The folder the file was saved in.
Progress	What the report is doing right now — for example “Building cache for DEV: ...” while a live cache is built first.
Status	See the status table below.
Duration	Total time as hours:minutes:seconds, including any cache build done as part of the report.

4.3 Status values

Status	Meaning
In Progress	Running now. The Progress column shows the current step.
Complete	Finished successfully.
Error	Stopped because of a problem (an error window also explained it). For a cache run this also covers a build that was interrupted by closing the tool.
Cancelled	Stopped before it finished.
Missing Data (cache runs only)	The run is listed, but its saved data is no longer in the tool’s database, so it cannot be used. Delete it and build a new one. The tool checks this every time it starts.

Note: Nothing pops up when a cache run or report finishes. Watch the **Status** and **Duration** columns instead; they update by themselves while you carry on working in the tool.

4.4 Right-click menus

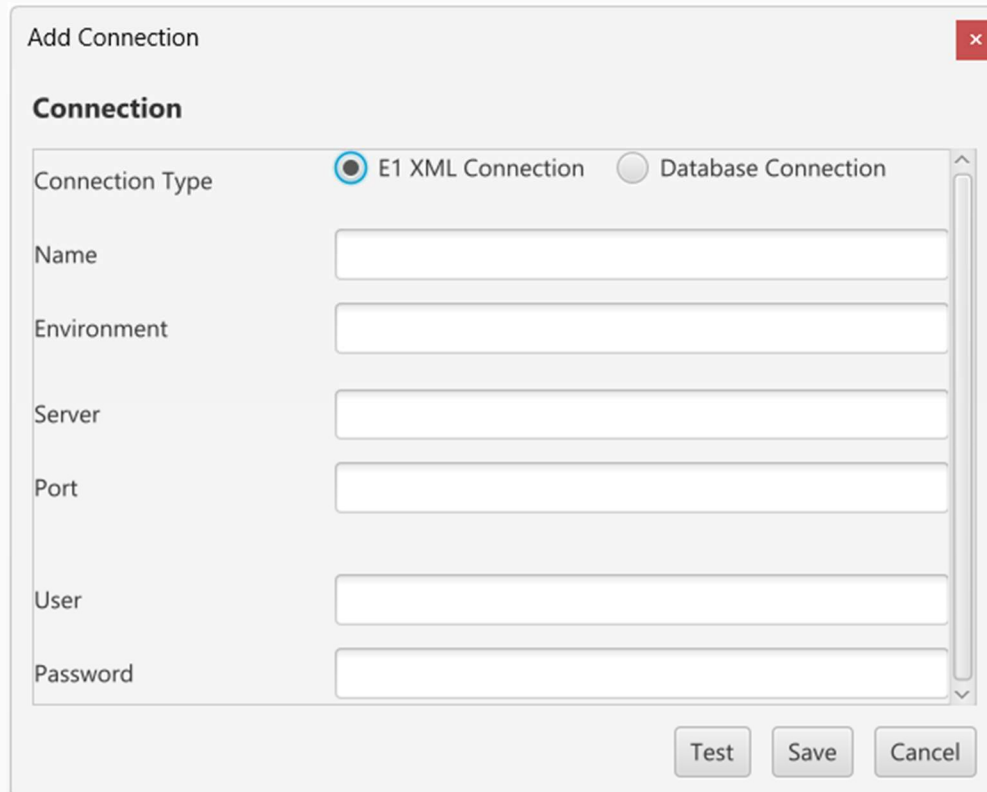
Where	Items	Notes
Connections tab	New Connection, Edit Connection, Copy Connection, Delete Connection, Refresh Cache, Compare, Export, Live Review	Same actions as the menu bar. Refresh Cache, Export and Live Review start with the connection you right-clicked.
Cache History tab	Export, Compare, Live Review, Delete Cache	Export, Compare and Live Review start with that exact cache run chosen (Compare puts it on the Left side). Use rows with Status Complete . You can select several rows to delete.
Report History tab	Open Folder, Delete Selected Report(s)	Open Folder opens the report's folder in Windows Explorer. Deleting removes the history row only — the Excel file stays on disk.

5. Setting up connections

A connection holds the details needed to reach one JDE environment. Create one for every environment you want to read — for example Development, Test and Production.

5.1 Adding a connection

1. Choose **Connection ► New** (or right-click in the Connections tab and choose **New Connection**).
2. Pick the **Connection Type: E1 XML Connection** or **Database Connection**. The fields below change to match.
3. Fill in the fields (see the tables below).
4. Click **Test** to check the details (optional but recommended).
5. Click **Save**. The connection appears in the Connections tab.



Add Connection

Connection

Connection Type ☒ E1 XML Connection ☐ Database Connection

Name

Environment

Server

Port

User

Password

Test Save Cancel

Add Connection
×

Connection

Connection Type
☐ E1 XML Connection
☒ Database Connection

Name

Environment

Database Type
☒ AS400/DB2
☐ MS-SQL
☐ Oracle

Server

Port

Database Name

Schema/Owner

Properties

User

Password

Test
Save
Cancel

5.2 E1 XML connection

Field	What to enter
Name	A short name you will recognize, such as DEV or PROD. Required. It cannot be changed later.
Environment	The JDE environment, for example JDV920.
Server	The JDE Enterprise server host name.
Port	The Enterprise server port number.
User	A JDE user that can read UDC data.
Password	That user's password (hidden as you type).

5.3 Database connection

Choose **Database Connection** to read F0005 and F0004 straight from the database. The extra fields appear (for the exact entries for each database type — AS400/DB2, MS-SQL and Oracle — see **Appendix A**, section 12):

Field	What to enter
Name	A short name you will recognize. Required. It cannot be changed later.
Environment	The JDE environment (for your reference).
Database Type	AS400/DB2 (the default), MS-SQL or Oracle .
Server	The database server host name.
Port	The database port. Leave blank for AS400/DB2; required for Oracle (typically 1521). See Appendix A.
Database Name	Not used for AS400/DB2. For MS-SQL, the database name. For Oracle, the SID (ORCL) or the service name starting with a slash (/SERVICE). See Appendix A.
Schema/Owner	The schema (owner or library) that holds the JDE data tables. The tool reads <Schema>.F0005 and <Schema>.F0004. Required for every database type.
Properties	Extra driver properties as key=value, separated by ;. AS400/DB2: enter <code>translate binary=true</code> . MS-SQL: only if needed (for example <code>encrypt=false</code>). Oracle: leave blank. See Appendix A.
User	A database user with read access to F0005 and F0004.
Password	That user's password (hidden as you type).

5.4 Testing a connection

- **Database connection: Test** opens a real connection. “**The database connection was opened successfully.**” means the server, port, user and password work. Otherwise a “**Failed to open the database connection**” window shows the reason from the database driver.
- **E1 XML connection: Test** does not contact JDE. It reminds you that an E1 XML connection is proved by running a **Refresh Cache** from the main window (section 6).
- **Schema and tables are not checked:** Test only opens a connection. It does not check the Schema/Owner or your access to F0005 and F0004 — confirm them with **Live Review** (section 7, and Appendix A, section 12.5).

5.5 Editing, copying and deleting

- **Edit** — select the connection and choose **Connection ► Edit**. The Name is fixed; everything else can change.
- **Copy** — select a connection and choose **Connection ► Copy**. All the settings (including the password) are copied into a new dialog with a **blank Name** — type a new name and save. This is the quickest way to set up a second environment on the same server. Caches are **not** copied; the new connection starts with none.

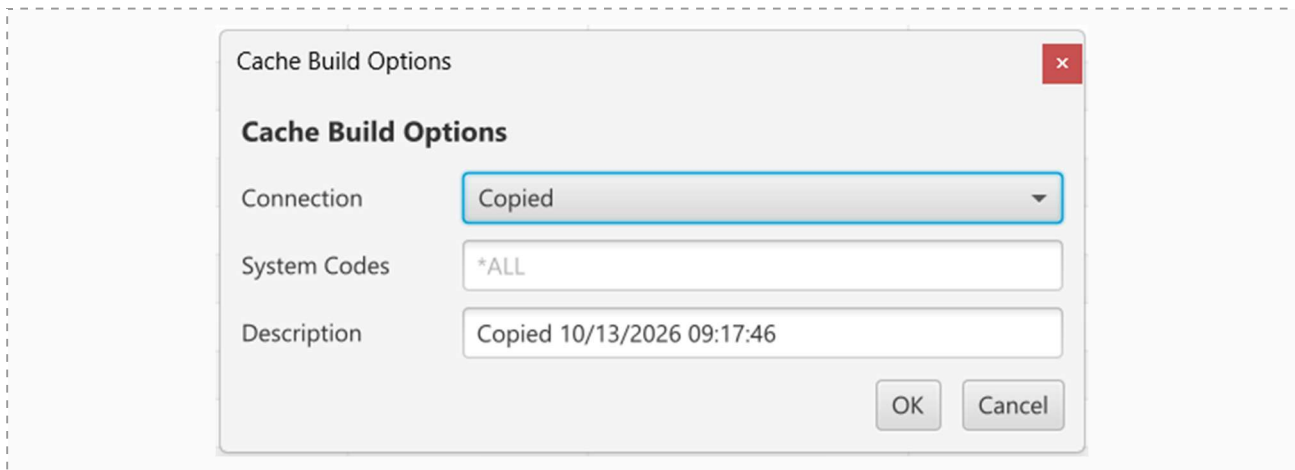
- **Delete** — select the connection and choose **Connection ► Delete**, then confirm. The connection **and all of its cache runs** are removed and cannot be recovered. Report History rows are kept.

6. Building a cache

A cache run reads the UDC values (F0005) and type definitions (F0004) from a connection and saves them inside the tool. Build one whenever you want a snapshot — before a go-live, after a refresh of a test environment, or simply to compare against later.

6.1 Refresh Cache

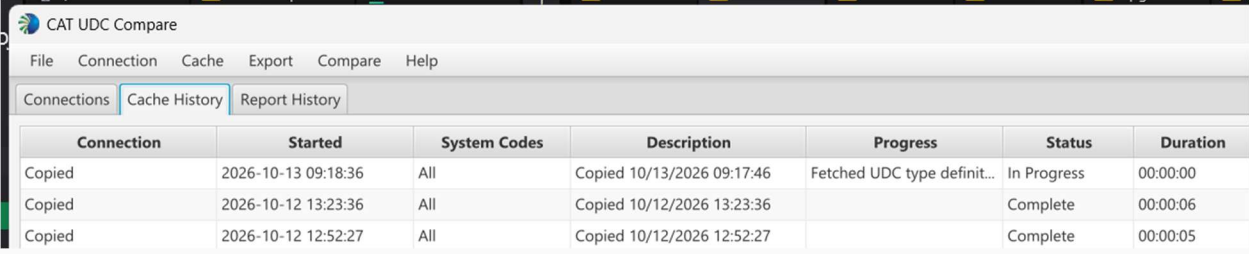
1. Choose **Cache ► Refresh Cache** (or right-click a connection and choose **Refresh Cache**). The **Cache Build Options** window opens.
2. Choose the **Connection** to read.
3. In **System Codes**, leave *ALL to read everything, or type a comma-separated list such as 00, 01, 42 to read only those system codes.
4. Check the **Description**. It is filled in for you as the connection name plus the date and time (for example DEV 10/12/2026 14:03:55). Change it to something meaningful if you like — for example DEV before upgrade. The description appears in Cache History and in the Cache pick-lists.
5. Click **OK**.



Note: The description is re-created each time you change the **Connection** choice, so choose the connection first and then edit the description.

6.2 Watching a build

- A new row appears at once at the top of **Cache History** with Status **In Progress**. There is no pop-up and no progress window — you can keep using the tool.
- The **Progress** column shows the step, such as “Fetching UDC values for DEV...”, then “Building local cache for DEV...”.
- When it finishes the Status becomes **Complete** and **Duration** shows the time taken. The connection’s **Cache Build Date** on the Connections tab is updated.
- If it fails the Status becomes **Error** and a window titled **Refresh Cache** explains why (for example the server could not be reached, or the user or password was refused).



The screenshot shows the CAT UDC Compare application window. The title bar reads 'CAT UDC Compare'. The menu bar includes 'File', 'Connection', 'Cache', 'Export', 'Compare', and 'Help'. Below the menu bar are three tabs: 'Connections', 'Cache History' (which is selected), and 'Report History'. The 'Cache History' tab displays a table with the following data:

Connection	Started	System Codes	Description	Progress	Status	Duration
Copied	2026-10-13 09:18:36	All	Copied 10/13/2026 09:17:46	Fetches UDC type definit...	In Progress	00:00:00
Copied	2026-10-12 13:23:36	All	Copied 10/12/2026 13:23:36		Complete	00:00:06
Copied	2026-10-12 12:52:27	All	Copied 10/12/2026 12:52:27		Complete	00:00:05

6.3 Every build is its own snapshot

Each Refresh Cache creates a **new run**; earlier runs are never replaced. That is what lets you compare two points in time. When you later choose **Use Cache**, you pick the exact run you want by its connection, date/time and description.

6.4 Deleting cache runs

1. On the **Cache History** tab, select one or more rows (hold **Ctrl** or **Shift** for several).
2. Right-click and choose **Delete Cache**, then confirm.
 - A run that is still building is skipped (and you are told).
 - Deleting a run permanently removes its saved data, so it can no longer be used for a compare or an export. Reports you already produced are not affected.
 - Old runs take up space in the tool's database. Delete the ones you no longer need.

Tip: A run whose Status is **Missing Data** can no longer be used — delete it and build a new one if you still need that snapshot.

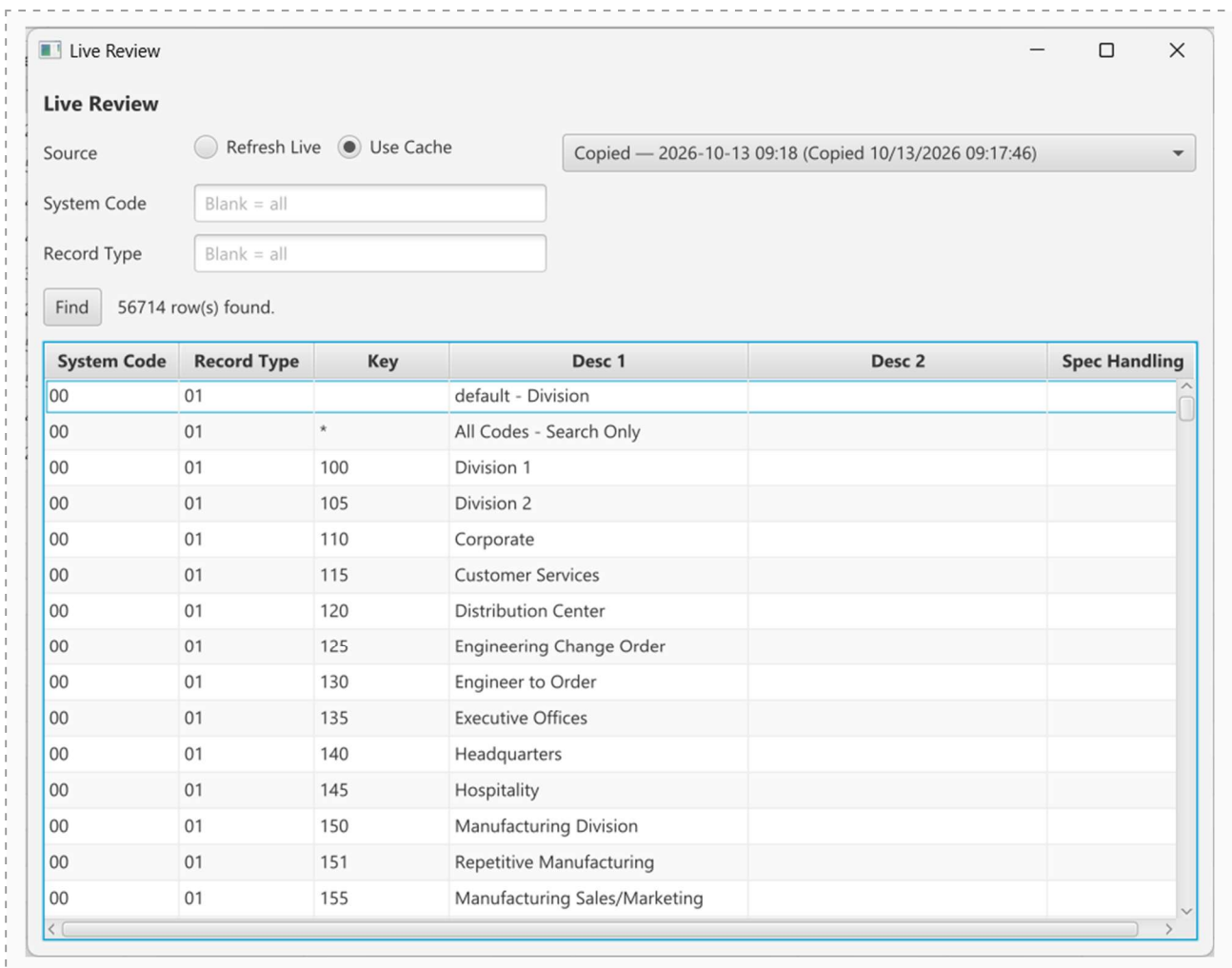
7. Looking at the data — Live Review

Live Review shows the UDC values for one source in a table, filtered by system code and record type. It is a quick way to look something up without producing an Excel file.

7.1 Opening it

- **Connection ► Live Review** or **Cache ► Live Review** — then choose the source in the window.
- Right-click a connection (Connections tab) or a cache run (Cache History tab) and choose **Live Review** — the window opens with that connection or run chosen.

The Live Review window stays open alongside the main window, so you can keep it beside your work or open several.



7.2 Using it

1. Choose **Refresh Live** (read from the connection now) or **Use Cache** (read a saved run), then pick the connection or the cache run in the drop-down beside it.
2. Optionally type a **System Code** and/or a **Record Type** (the second part of the UDC key, such as ST or DT). **Leave both blank to see everything.**

3. Click **Find**. The status beside the button shows “Searching...”, then the number of rows found.

Column	Content
System Code	The UDC system code (F0005 DRSY).
Record Type	The UDC code type (F0005 DRRT).
Key	The code value (F0005 DRKY).
Desc 1, Desc 2	The two descriptions.
Spec Handling	The special handling code.

Note: System Code and Record Type each take a **single** value and are not case-sensitive. **Refresh Live** reads the connection directly and does **not** create a cache run.

8. Exporting UDC data

An export writes one source's UDC type definitions and UDC values to an Excel workbook — a plain listing, with no comparison.

8.1 Running an export

1. Choose **Export** ► **Export UDC Data**. (Or right-click a connection and choose **Export**, or right-click a cache run in Cache History and choose **Export** to start with that run chosen.)
2. Under **Source**, choose **Refresh Live** or **Use Cache**, then choose the connection (Live) or the cache run (Cache) in the drop-down.
3. Optionally enter **System Codes** — a comma-separated list. **Leave blank for all**. The list limits what is written whether the data comes from a live read or from a saved run.
4. Click **Browse...** and choose where to save the workbook. The suggested name is UDC_Export_<connection>.xlsx.
5. Click **Run Export**.

- A row appears at once in **Report History**. With **Refresh Live** its Progress first shows “Building cache for ...”, then the export steps.
- When it finishes the Status becomes **Complete**. There is no completion pop-up. Use **Report History** ► **Open Folder** to open the folder.

Tip: The tool remembers the last folder you saved an **export** to and starts there next time. Exports and compares remember their folders separately; if one has none yet it offers the other's folder.

8.2 What is in the workbook

Sheet	Columns
F0004 Code Types	System, Prod Code, Desc 1, Code Length, 2nd Line, Numeric
F0005 UDC Values	System, Prod Code, Key, Desc 1, Desc 2, Spec Handling

Each sheet starts with a heading block: the report title **UDC Export**, the run date, the tool name and version, the **System Codes** that were requested, and a row of connection details — Connection, Connection Type, Environment, Server, Port, Catalog and Schema (database connections only), the **Data**

Timestamp (when the cache run was built) and the **Cache System Codes** (which system codes that cache run holds). Below it is the data table with a frozen heading row and an Excel filter on every column.

9. Comparing two sources

A compare puts a **Left** and a **Right** source side by side and reports every difference in the UDC values and in the UDC type definitions.

9.1 Running a compare

1. Choose **Compare ► Run Compare**. (Or right-click a cache run in Cache History and choose **Compare** — that run is placed on the **Left**.)
2. For the **Left** and for the **Right**, choose **Refresh Live** or **Use Cache**, then pick the connection (Live) or the cache run (Cache) in the drop-down.
3. Optionally enter **System Codes** — a comma-separated list that limits both sides. **Leave blank for all**.
4. Tick **Diff Only** if you want only the rows that differ. Leave it unticked to list every row with its result.
5. Click **Browse...** and choose the workbook file. The suggested name is UDC_Compare.xlsx.
6. Click **Run Compare**.

Compare UDC Data

Compare UDC Data

Left ☐ Refresh Live ☒ Use Cache Copied — 2026-10-13 09:18 (Copied 10/13/2026 09:17:46)

Right ☒ Refresh Live ☐ Use Cache Copied

System Codes Comma-separated, blank = all

Diff Only ☐

Output File Browse...

Run Compare Cancel

9.2 What happens next

- **Cache against cache:** the compare starts straight away — a row appears in Report History and the workbook is written.
- **A Live side:** a row appears in Report History at once and says **“Building cache for <connection>...”**. The tool builds a fresh cache run for each live side (the Left first, then the Right), each shown in Cache History, and then writes the compare. The report’s **Duration** includes the cache time.
- If a cache build fails, the report ends as **Error** and a **Refresh Cache** window explains why.
- There is no completion pop-up. When the Status shows **Complete**, open the folder with **Report History ► Open Folder**.

Important: Close the Excel file before running a compare to the same name. If the file is open, the tool reports that the existing file could not be replaced — close it in Excel and run again.

9.3 Reading the compare workbook

The workbook has two sheets, in this order:

Sheet	Compares	Columns
CAT_Code_Types_Compare	UDC type definitions (F0004), matched on System + Prod Code.	System, Prod Code; Left: Desc 1, Code Length, 2nd Line, Numeric; Right: the same four; Mismatch
CAT_UDC_Compare	UDC values (F0005), matched on System + Prod Code + Key.	System, Prod Code, Key; Left: Desc 1, Desc 2, Spec Handling; Right: the same three; Mismatch; Code Type

Each sheet begins with a heading block — the report title **UDC Comparison**, the run date and tool, whether it is **Differences Only** or **All Values**, the **System Codes** requested, and a **Side** table with a row for the Left and a row for the Right showing each side's connection, type, environment, server, data timestamp (when its cache was built) and cache system codes. The Left and Right column headings carry the connection name and cache time, so you can always tell which snapshot a value came from. Below that is the data table with a frozen heading row and filters on every column.

The Mismatch column

Value	Meaning
N	The row is on both sides and is the same.
Y	The row is on both sides but at least one value differs.
Missing Right	The row exists only on the Left .
Missing Left	The row exists only on the Right .

The Code Type column (UDC Values sheet)

When a whole **UDC type** exists on only one side, every value in it is flagged so you can see at a glance that the entire code type is new:

Value	Meaning
New Left	The UDC type exists only on the Left.
New Right	The UDC type exists only on the Right.
(blank)	The type exists on both sides.

Example

System	Prod Code	Key	Left Desc 1	Right Desc 1	Mismatch	Code Type
00	AA	1	One	One	N	
00	AA	2	Two	TWO	Y	

System	Prod Code	Key	Left Desc 1	Right Desc 1	Mismatch	Code Type
00	CC	1	Charlie one		Missing Right	New Left
00	DD	1		Delta one	Missing Left	New Right

Tip: Use the Excel filter on **Mismatch** to jump to the differences, or tick **Diff Only** to leave the matching rows out altogether.

10. Report History

The **Report History** tab is the record of every export and compare. It is also where you watch a report that is running, because nothing pops up when it finishes.

- **Open Folder** — right-click a row and choose it to open the report's folder in Windows Explorer. If the folder has been moved or deleted you are told it was not found.
- **Delete Selected Report(s)** — select one or more rows, right-click, choose it and confirm. This removes the **history rows only**; the Excel files stay where they are. A row that is still running is skipped.
- The **Connections** and **File Name** columns tell you which sources and which file each row is, so you can find the right workbook later.
-

11. Troubleshooting

What you see	What it means	What to do
Windows reports that Java cannot be found, or the tool does not start at all	The application cannot find its base JDK.	Check that C:\CAT-Tools\JDK25\bin\java.exe exists (section 2.2) and that the folder is named exactly JDK25 and is beside the application folder.
Initialization Error — Application Already Running	Another copy is using the same application folder, or the tool cannot create its database there.	Close the other copy (see Task Manager). Make sure the application folder is writable and is not under Program Files.
License Failure — The key has not been successfully validated.	The license server did not accept the key, or could not be reached.	Read the message under it (key incorrect, not found, date invalid, or “A fatal error occurred.” if no reply). Check the key and your internet access, then try again or contact C&A Technology.
Invalid License — The application license has not been validated.	No validated license was saved, so the tool closes.	Start the tool again and complete Validate then Save (section 3.2).
Name required	A connection was saved without a name.	Type a name and save again.
Failed to save connection (Add/Copy)	A connection with that name already exists, or the database refused the save.	Choose a different name.
Failed to open the database connection	The connection test could not reach or log in to the database.	Check server, port, database name, schema, user, password and that the database driver type is right.
Failed to refresh <connection>	A cache build stopped with an error.	Read the reason in the window. Check the connection details (use Edit), network access to the JDE server or database, and the user’s authority.
Cache row shows Missing Data	The run’s saved data is no longer in the tool’s database.	Delete the row and build a new cache.
Cache run “...” no longer has its data. Refresh the cache and try again.	The cache run you picked has lost its data.	Build a new cache (Cache ► Refresh Cache) and use that.
Output file ... already exists and could not be deleted. Close it in Excel and try again.	The workbook is open in Excel or locked.	Close the file, or choose a different file name.
Report folder does not exist	The folder you chose has been removed.	Choose an existing folder with Browse....

What you see	What it means	What to do
Failed to run the report	The report stopped while it was being written.	Read the message; check disk space and that you can write to the folder. See the log file for detail.
MS-SQL: Test fails (message about encryption, SSL/TLS or the certificate)	The server does not accept the driver's default encrypted connection.	Enter encrypt=false in Properties and Test again (Appendix A, 12.3).
AS400/DB2: text looks unreadable when reviewing or exporting	The connection is missing the AS400 binary-translation property.	Enter translate binary=true in Properties , save, and rebuild the cache (Appendix A, 12.2).
Oracle: Failed to open the database connection	The Port is blank (treated as 0), or the Database Name is not a SID (ORCL) or a service name starting with /.	Type the Port (1521) and enter ORCL (SID) or /SERVICE as the Database Name; leave Properties blank (Appendix A, 12.4).
Refresh Cache or Live Review fails with an error about a table	The Schema/Owner is blank or wrong. Test does not check it.	Edit the connection and enter the schema, owner or library that holds F0005 and F0004 (Appendix A, 12.5).

11.1 The log file

For anything not covered above, send C&A Technology the log file **C:\CAT-Tools\CAT-UdcCompare\catXUdcCompare0.0.log** (and derby.log from the same folder if the problem is about starting up), together with what you were doing and the exact message on screen. Set `com.catechnology.level=FINE` in `logging.properties` first if you can, and repeat the action, so the log records the details.

12. Appendix A — Database connection settings by type

Use this appendix when you fill in a **Database Connection** (section 5.3). The three database types are entered slightly differently. Whatever the type, the tool reads `<Schema>.F0005` and `<Schema>.F0004`, so the **Schema/Owner** is always required.

12.1 How the fields are used

Field	How the tool uses it
Server	The host name or IP address of the database server. (MS-SQL named instances and Oracle connect strings are explained in 12.3 and 12.4.)
Port	The database port. The tool fills in no default — a blank Port is treated as 0.
Database Name	Used differently by each type: not used for AS400/DB2, the database name for MS-SQL, and the SID or service name for Oracle.
Schema/Owner	The schema (AS400 library, SQL Server schema or Oracle owner) that holds F0005 and F0004. Required for every type. It is only used to build the table names, so Test cannot catch a blank or wrong value — it shows up later, when a Refresh Cache or Live Review fails with an error about the table.
Properties	Extra driver settings written as key=value. Separate several with ; (key=value;key=value); a leading ; is added for you. Not used by Oracle.
User / Password	Sent to the database driver to log in. They are never part of the connection address.

At a glance — what to enter for each database type:

Field	AS400/DB2	MS-SQL	Oracle
Server	Host name or IP	Host name or IP, or HOST\INSTANCE	Host name or IP
Port	Leave blank (not used)	1433 (blank uses the driver default; not used with a named instance)	Required — usually 1521
Database Name	Leave blank (not used)	The database name. If blank, Port and Properties are ignored	ORCL or /SERVICE — see 12.4
Schema/Owner	Library (required)	Schema (required)	Owner (required)
Properties	translate binary=true	Only if needed, for example encrypt=false	Leave blank

Note: Field lengths: Name 100, Environment 20, Server 100, Database Name 250, Schema/Owner 50 and Properties 150 characters.

12.2 AS400/DB2

Choose **AS400/DB2** under **Database Type** (it is the default).

Field	What to enter	Example
Name	Any name you will recognize.	DEV400
Environment	The JDE environment (for your reference).	JDV920
Server	Host name or IP address of the IBM i (AS400). Nothing else — no /LIBRARY.	172.16.3.221
Port	Leave blank.	
Database Name	Leave blank.	
Schema/Owner	The library that holds F0005 and F0004.	PRODC TL
Properties	translate binary=true	translate binary=true
User / Password	An IBM i user with read access to the library.	

Important: An AS400/DB2 connection **almost always needs the JDBC property translate binary=true**. Enter it in **Properties** for every AS400/DB2 connection — without it, text read from the database can come back unreadable. To add more properties, put them after it, separated by ;.

With these entries the tool connects with:

```
jdbc:as400://172.16.3.221/;translate binary=true
```

12.3 MS-SQL

Choose **MS-SQL** under **Database Type**.

Field	What to enter	Example
Name	Any name you will recognize.	DEVSQL
Environment	The JDE environment (for your reference).	JDV920
Server	Host name or IP address. For a named instance use HOST\INSTANCE.	192.168.1.53
Port	The SQL Server port. Leave blank to use the driver default (1433).	1433
Database Name	The JDE database. Always fill this in.	JDE_DEVELOPMENT
Schema/Owner	The schema that holds F0005 and F0004.	testctl
Properties	Leave blank to start. Add encrypt=false if Test fails (see below).	
User / Password	A SQL Server login with read access.	

With these entries the tool connects with:

```
jdbc:sqlserver://192.168.1.53:1433;databaseName=JDE_DEVELOPMENT
```

If...	Then...
Port is blank	The driver's default port (1433) is used.
Server contains a backslash (HOST\INSTANCE)	The Port is ignored — the instance name decides.
Database Name is blank	The tool connects to the server only, and Port and Properties are ignored.

Important: If **Test** fails for an MS-SQL connection — typically with a message about encryption, SSL/TLS or the server certificate — enter **encrypt=false** in **Properties** and click **Test** again. (Current Microsoft drivers encrypt the connection by default, and a server without a trusted certificate can refuse it.)

With encrypt=false the tool connects with:

```
jdbc:sqlserver://192.168.1.53:1433;databaseName=JDE_DEVELOPMENT;encrypt=false
```

Tip: If you would rather keep the connection encrypted and trust the server's own certificate, use trustServerCertificate=true instead. Separate several properties with ;, for example encrypt=true;trustServerCertificate=true.

12.4 Oracle

Important: Oracle is entered differently from the other database types. The first character of **Database Name** tells the tool whether you are giving a SID or a service name, **Port is required**, and **Properties must be left blank**.

Choose **Oracle** under **Database Type**, then enter the Database Name in one of these two ways:

Database Name	Meaning	The tool connects with
ORCL (or :ORCL)	A SID — type the name, with or without a leading colon.	jdbc:oracle:thin:@dbhost:1521:ORCL
/JDEPROD	A service name — start the name with a slash.	jdbc:oracle:thin:@dbhost:1521/JDEPROD

Example, using a service name:

Field	What to enter	Example
Name	Any name you will recognize.	DEVORA
Environment	The JDE environment (for your reference).	JDV920
Server	Host name or IP address of the Oracle server.	dbhost

Field	What to enter	Example
Port	Required. The listener port.	1521
Database Name	/ plus the service name, or the SID.	/JDEPROD
Schema/Owner	The owner of the F0005 and F0004 tables.	PRODCTL
Properties	Leave blank. Oracle does not take key=value properties here.	
User / Password	An Oracle user with SELECT on the owner's F0005 and F0004.	

Note: A blank Port is treated as 0, and an Oracle connection with port 0 fails — always type the port when you enter a Database Name.

Advanced: a full connect string

If **Database Name** is left blank, whatever you type in **Server** is used exactly as written after `jdbc:oracle:thin:@`, and Port and Properties are ignored. That allows an Oracle connect string such as `//dbhost:1521/JDEPROD` or a full TNS descriptor. This follows Oracle's standard connect-string syntax but has not been tried with this tool, so use the SID or service-name entries above unless you need it.

12.5 Checking a new connection

Test only proves that the tool can open a connection with the server, port, user and password you entered. It does **not** check the Schema/Owner or your access to F0005 and F0004. After a successful Test, save the connection and open **Live Review**, choose **Refresh Live**, select the connection and click **Find** (section 7).

If Find reports an error about a table, the Schema/Owner is usually blank or wrong. Edit the connection, correct it and try again.

13. Appendix B — Reference

13.1 Files and folders the tool creates

Item (in the application folder)	Purpose
settings\	The embedded database: license, connections, cache runs, report history, and remembered window and folder settings. Back this up.
derby.log	The database engine's own log.
catXUdcCompare0.0.log	The application log (rolls over at 10 MB, three files kept; .1ck files next to it are normal).
logging.properties	Controls how much is written to the log (section 2.5).

13.2 Quick reference — where to find things

I want to...	Go to...
Add or change a connection	Connection ► New / Edit / Copy
Take a snapshot of an environment	Cache ► Refresh Cache
Look up a code	Connection ► Live Review (or Cache ► Live Review)
Write one environment to Excel	Export ► Export UDC Data
Find differences between two environments or two dates	Compare ► Run Compare
See how a report or cache build is going	Report History / Cache History tabs (Progress, Status, Duration)
Open the folder of a finished report	Report History ► right-click ► Open Folder
Remove old snapshots	Cache History ► right-click ► Delete Cache
Renew or re-enter the license key	Help ► Validate License

13.3 Glossary

Term	Meaning
UDC	User Defined Code — a JDE code list such as a status or type code.
F0005	The JDE table holding the UDC values (system code, record type, key, descriptions, special handling).
F0004	The JDE table holding the UDC type definitions (code length, second line, numeric flag).
System Code	The JDE system a UDC belongs to (for example 00 or 42).
Record Type (Prod Code)	The code type within a system. Shown as Prod Code in workbooks and Record Type in Live Review.

Term	Meaning
Key	The individual code value within a type.
Cache run	One saved snapshot of a connection's UDC data, created by a Refresh Cache.
Refresh Live / Use Cache	Read now from the connection, or use a saved snapshot.